What Is Claimed Is:

1. A prism sheet having a concave pentagonal structure, the prism sheet comprising:

a base layer; and

a prism array disposed on and supported by the base layer, the prism array consisting of a plurality of prisms aligned in parallel and one beside the other,

wherein the transversal cross-section of each prism has a shape of concave pentagon, which is symmetrical about a vertical line passing the apex, and

wherein the interior angle α of the apex is $30° \leq \alpha \leq 120°$, the exterior angle β formed by the upper slant side and the lower slant side is $\beta < 180°$, the interior angle γ of the lower vertex formed by the lower slant side and the base is $5° \leq \gamma \leq 85°$, and the length w of the base is $30\mu m \leq w \leq 100\mu m$.

2. A prism sheet according to claim 1, wherein the interior angle α of the apex is $40° \leq \alpha \leq 100°$, the exterior angle β formed by the upper slant side and the lower slant side is $160° \leq \beta \leq 179°$, and the interior angle γ of the lower vertex formed by the lower slant side and the base is $30° \leq \gamma \leq 60°$.

3. A prism sheet according to claim 1 or 2, wherein the length w of the base is $40\mu m \leq w \leq 60\mu m$.

4. A prism sheet having a concave pentagonal structure, the prism sheet comprising:

a base layer; and

a prism array disposed on and supported by the base layer, the prism array consisting of a plurality of prisms aligned in parallel and one beside the other,

wherein the transversal cross-section of each prism has a shape of concave pentagon, which is symmetrical about a vertical line passing an apex, and

wherein the length w of the base is $15\mu m \leq w \leq 100\mu m$.

5. A prism sheet according to claim 4, wherein the interior angle α of the apex is $30° \leq \alpha \leq 120°$, the exterior angle β formed by the upper slant side and the lower slant side is $\beta < 180°$, and the interior angle γ of the lower vertex formed by the lower slant side and the base is $5° \leq \gamma \leq 85°$.

6. A Prism sheet according to claim 4, wherein the length w of the base is $50\mu m$, the height h from the base to the apex is $26\mu m$, and the interior angle γ of the lower vertex formed by the lower slant side and the base is 45°, and the interior angle of the apex is $60° \leq \alpha \leq 87°$.